

# Goats

## Give kids a healthy start with high quality colostrum

This kidding season, the best start you can give your newborn kids is to make sure that all get access to colostrum soon after birth. Colostrum is so vital because it provides passive immunity to kids for the first 3 to 5 weeks via antibodies produced by their mother. Because kids are born with no antibodies of their own, they rely solely on those provided in colostrum for those critical first months until their own immune systems begin to function.



However, all colostrum is not the same. The quality of colostrum can vary greatly from goat to goat and pregnancy to pregnancy. Unvaccinated does that are under-nourished will not mount an adequate immune response needed to manufacture the essential antibodies for high quality colostrum. Additionally, older does that have been exposed to more pathogens throughout their life will yield better quality colostrum than first freshening doelings. Management during pregnancy is key in the production of high quality colostrum. Below are some management tips:

• **High quality mineral/vitamin supplementation.** Proper mineral and vitamin nutrition is vital in antibody production. Minerals such as selenium, copper and zinc are key. Newborns are very dependent on copper acquired during the prenatal period since copper levels in milk are poor. Therefore, proper copper nutrition in gestating does is critical to body stores in newborns. Maternal copper deficiency has been scientifically linked to increased mortality and morbidity in lambs and calves. The same can be assumed of kids. Because mineral nutrition is so vital to the success of your future kid crop, providing a complete mineral/vitamin supplement designed for goats is good insurance. The **SWEETLIX® Meat Maker®** line of goat supplement products provides 100% of the daily-recommended levels of essential trace minerals and vitamins needed for proper immune function.

- 2. Allow does to acclimate.** Does must be kept in the location in which they are due to kid for at least fourteen days prior to kidding. This enables them time to manufacture the correct antibodies for their specific kidding environment to pass on to their kids. It is generally recommended that does be vaccinated against Clostridium Perfringens Types C & D and Tetanus toxoid. However, consult your local veterinarian for vaccination recommendations specific to your geographic area.
- 3. Get colostrum in kids within 12 hours of birth.** The antibodies found in colostrum are absorbed whole through the lining of the stomach. However, the window in which this can occur is quite short. The efficiency with which a kid can absorb antibodies declines after just one hour of birth. This ability to absorb antibodies drastically decreases after 12 hours and is essentially gone by 24 hours of age. Therefore, if a kid doesn't get colostrum within the first 24 hours of birth, its chances of survival are very slim.
- 4. Be prepared to bottle feed colostrum if necessary.** The single most important component to successful transfer of antibodies from doe to kid is the consumption of sufficient amounts of colostrum. Kids must consume enough colostrum to provide the antibodies needed for passive immunity. This is normally not a problem as long as does accept their kids and have enough milk and teats to feed the litter. However, occasionally you will run into the problem of a doe rejecting her kids or producing a larger litter than she is capable of nursing effectively. In these cases you will be forced to bottle feed colostrum or risk losing the kid(s).

In order to be prepared for such a calamity, it is a good idea to have frozen colostrum on hand **BEFORE** kidding. In an ideal situation, freeze extra colostrum from several healthy older does (colostrum quality is better in older does than in first time fresheners). It is important to thaw only the amount of colostrum needed (once thawed you cannot refreeze). Thus it is best to freeze colostrum in small quantities. I would suggest ice cube trays (place the cubes in zip lock freezer bags after frozen) or pint zip lock freezer bags (frozen flat). These can be thawed quickly due to high surface area and allow you to use only the amount you need.

What is the best way to thaw colostrum? The main concern is not degrading the protective antibody proteins. This is best done by placing colostrum in warm (not hot) water (< 120°F, 50°C) and allowing to thaw. Alternately, colostrum can be thawed in a microwave with little damage to antibodies if it is heated for short periods on low power. Periodically pour off the thawed liquid to minimize excessive heating. It is also important to avoid "hot spots" inside frozen colostrum. Use of a turntable in the microwave can help to minimize this kind of

damage. How much do you need to thaw? A good rule of thumb would be 8 to 10% of the kid's body weight, however, it is best to feed according to appetite. For example, if the kid's birthweight is 5 lbs that would mean that you need roughly 1/2 lb of colostrum (5 lb X 10%). This translates into about a half of a pint (1 pint roughly equals 1 pound).



In summary, antibodies found in high quality colostrum protect kids for the first few months of their lives. Therefore, it is vitally important that kids receive adequate amounts of colostrum as soon after birth as possible to ensure survival. The quality of the colostrum will be dependant on how the doe is managed during pregnancy, especially during the last few weeks.

The **SWEETLIX Meat Maker** line of goat supplement products provides the daily-recommended levels of essential minerals and vitamins needed by gestating does to produce high quality colostrum at kidding.

For more information, contact your **local SWEETLIX dealer** or call 1-87-SWEETLIX to speak with a SWEETLIX nutritionist.